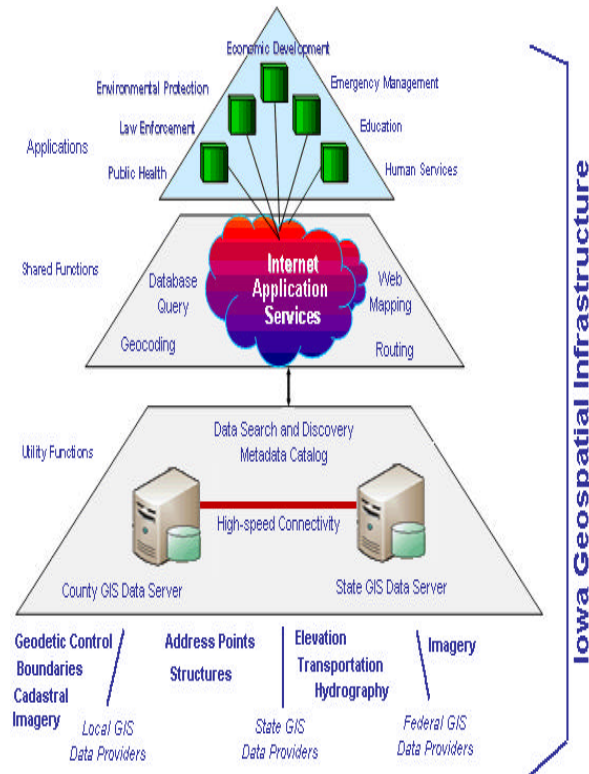# Iowa Geospatial Infrastructure

A State GIS Service Bureau - Why It's Needed

Benefits to State Agencies

- Geocoding and Address Validation Service

- Access to County Framework GIS Layers

- Web Applications, Data Hosting and Web Mapping

- GIS Training

- GIS Technical Assistance (data creation and analysis)

The Iowa Geospatial Infrastructure is a community of GIS data providers, service bureaus and technology that delivers GIS framework data layers to any user for any purpose. Many state agencies are using GIS in their every day work, and they all could benefit from better access to framework data such as land ownership parcels, high-resolution aerial ortho-imagery and address location points. Many state agencies have programmatic databases (students, patients, drivers licenses, etc) that have an associated address that could prove valuable if it could be accurately mapped to a point on a map. This type of geographic analysis helps service providers know where their clients are clustered, what resources are available and if more are needed. This in-turn can reduce the overall costs of providing services, or provide justification to target resources to special populations. The process of finding the geographic coordinates of an address is called **geocoding**, and is an important service that state agencies and others need.

The state GIS service bureau (SGSB) will provide geocoding and other GIS services to state agencies. The SGSB will maintain a data warehouse of the framework data layers, and collect state agency GIS layers such as elevation, transportation and stream networks into IGI. The SGSB data warehouse will be connected to and mirrored with the County GIS Service Bureau. The SGSB will provide GIS services to state agencies such as a geocoding and address validation, data hosting, GIS training, and web mapping applications to distribute information to the public. The SGSB will be a part of the Dept. of Public Defense's Homeland Security and Emergency Management Division, and will be located at the state EOC in Johnston, Iowa. During events such as the 2008 floods and tornadoes, the SGSB will provide critical support to emergency operations across the state.

SGSB – How It Works

State funding for the State GIS Service Bureau will provide for 4 staff positions, including program management and coordination, a data librarian, a GIS web programmer and system administrator, and a GIS training specialist. This core group of GIS professionals will support the collection and distribution of IGI framework layers to state agencies, provide backup support to the county GIS service bureau, and work with state agencies to enhance their GIS programs through data creation projects, training and application development. The program manager will have the job of coordinating the vertical integration of applications with cities, counties and other entities. For example, to build a statewide economic development web application that lists available properties for development, this position will need to coordinate with other organizations outside of state government to maximize the benefits of creating this service. The data librarian will have the task of maintaining the geocoding service, and coordination with the County GIS Service Bureau to obtain updates of new addresses to add to the database.

SGSB – Costs

1) State GIS Service Bureau Costs
- Program manager
- Web Developer/System Administrator
- IGI Data Librarian
- GIS Training Specialist

Salaries and Benefits $260,000/yr
Travel and Training $25,000/yr
Equipment, Software, Supplies $100,000/yr
TOTAL Yearly Operating Costs $385,000/yr

2) One-time Data Projects – The State GIS Service Bureau will have to help coordinate projects to complete framework data layers for the state. These layers include stream networks, address points and buildings.
- Stream network - $100,000/yr for 5 years
- Address points and buildings for geocoding service - $300,000/yr for 5 years

3) Ongoing Data Projects – The SGSB will help administer large on-going aerial ortho-imagery and lidar acquisitions with DNR, DOT and the counties.
- Acquisition of spring-time 1' resolution ortho-imagery, statewide every 3 years (state share of federal imagery program) - $500,000/yr
- Acquisition of lidar, statewide every 10 years (state share of federal lidar program) - $100,000/yr

TOTAL COSTS $1,385,000/yr for SCSB and State data projects

The full IGI report can be downloaded from http://www.iowagic.org/

Iowa Dept. of Education:
"…this site could be a foundation for data sharing between Economic Development, educators, workforce development. Time for agencies to understand that everything is interrelated. Geographic location is the unifying theme. Workforce development is critical. Dept. of Education is interested in where alumni go and their economic wellbeing."

Iowa Dept. of Human Services: *"…we probably have at least a million address records across our agency Far too many to manually resolve. As we attempt to expand the use of GIS in the agency, I expect address quality and geocoding to be our #1 barrier."*

IOWA
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